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**P I R**

PHOTOGRAPHIC INTERPRETATION REPORT



**SELECTED THICK  
EIGHT HF/DF SITES  
IN CHINA**

Declass Review by NIMA / DoD

FEBRUARY 1966

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## SELECTED THICK EIGHT HF/DF SITES IN CHINA

### INTRODUCTION

In response to [ ] the best available photography of the Thick Eight High Frequency/Direction Finding (HF/DF) sites near Chih-kan, Fu-chou, Kuang-chou, Kun-ming, and Shang-hai, China, was analyzed. In addition, photography of areas within a 15 nautical mile (nm) radius from the centers of

Peiping, Nan-ching, Shen-yang, and Lan-chou, China, was searched for similar Thick Eight HF/DF sites.

A total of 7 Thick Eight HF/DF sites has been identified, including 1 at Kun-ming, 1 at Kuang-chou, 1 at Shang-hai, 1 at Chih-kan, and 3 within the Peiping search area. A photograph and a description of each of these sites follow.

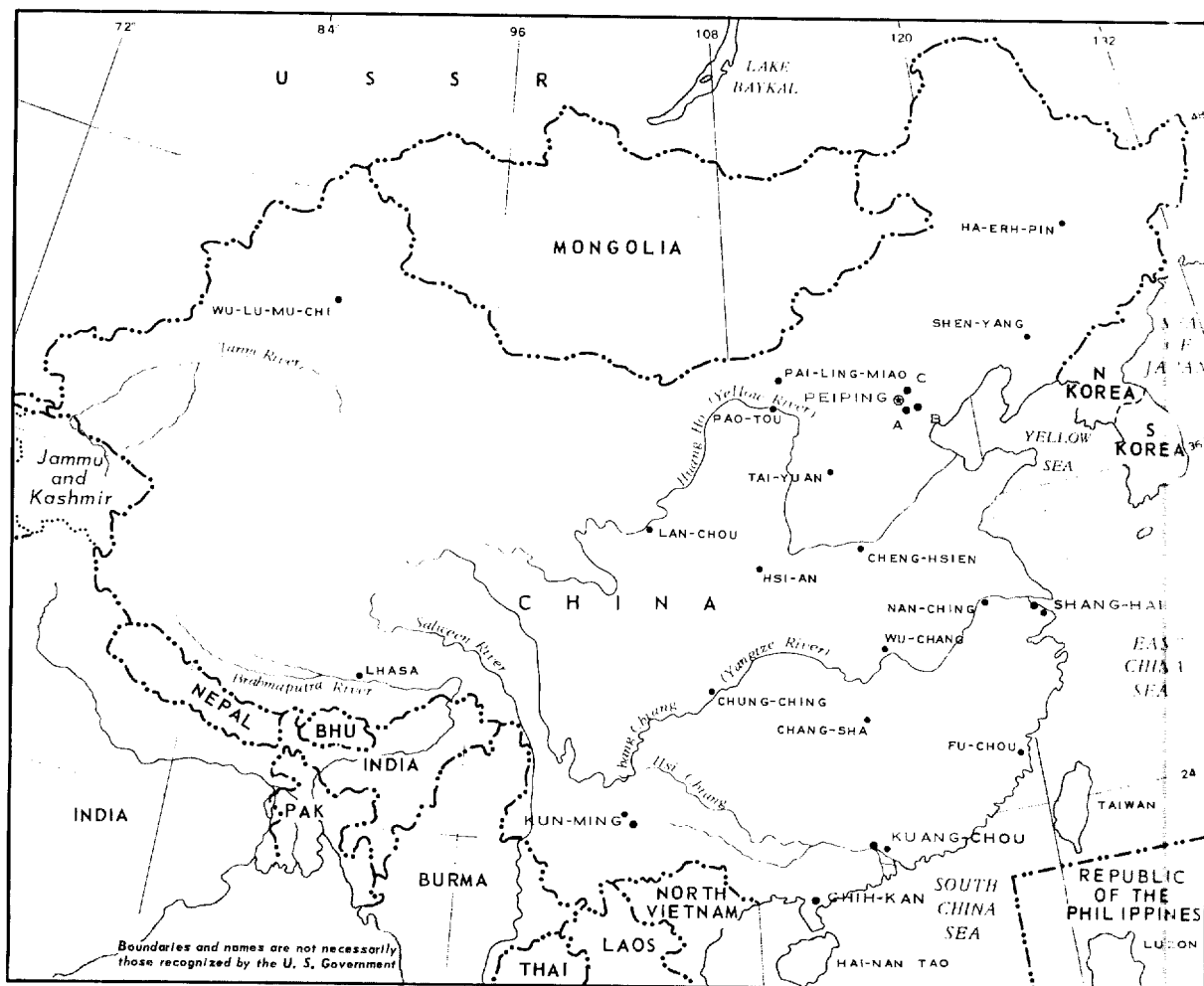


FIGURE 1. LOCATION OF THICK EIGHT HF/DF SITES IN CHINA.

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### CHIH-KAN THICK EIGHT HF/DF SITE, CHINA

Geo Coords: 21-17-20N 110-16-55E

NPIC Target No: 0615-11

BE No: None

Location: 4 nm west-northwest of Chih-kan

Nearest Airfields: Sui-chi Airfield is 8 nm northwest of the site and a smaller airfield, Fort Bayard Airfield, is 5.75 nm southwest of the site

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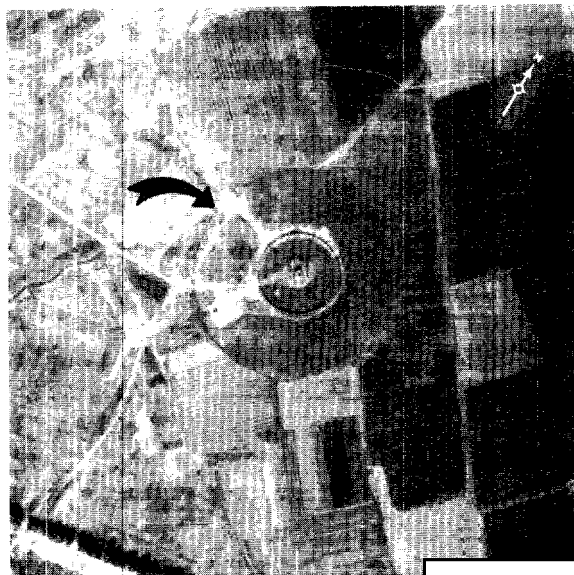


FIGURE 2. CHIH-KAN SITE.

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### KUN-MING THICK EIGHT HF/DF SITE, CHINA

Geo Coords: 24-55-55N 102-46-20E

NPIC Target No: 0496-11L1

Location: 8 nm southeast of Kun-ming

Nearest Airfield: Kun-ming Airfield is 4.5 nm northwest of the site

25X1

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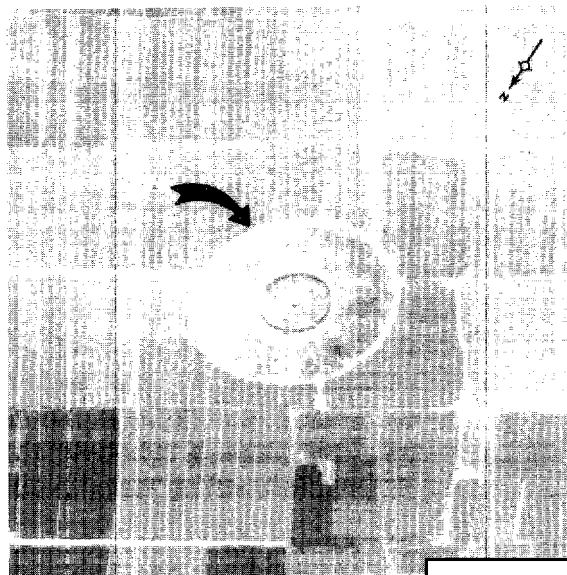


FIGURE 3. KUN-MING SITE.

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### KUANG-CHOU THICK EIGHT HF/DF SITE, CHINA

Geo Coords: 23-07-45N 113-08-55E

NPIC Target No: 0614-275

BE No: [REDACTED]

Location: 6.3 nm west of Kuang-chou

Nearest Airfield: Canton/Nan-hai Airfield is  
4.75 nm southwest of the site

25X1A

25X1D

Maps or Charts: DIA, US Air Target Chart,  
Series S0614-6III, 4th ed, Dec 64, Scale  
1:200,000 (SECRET) [REDACTED]

25X1

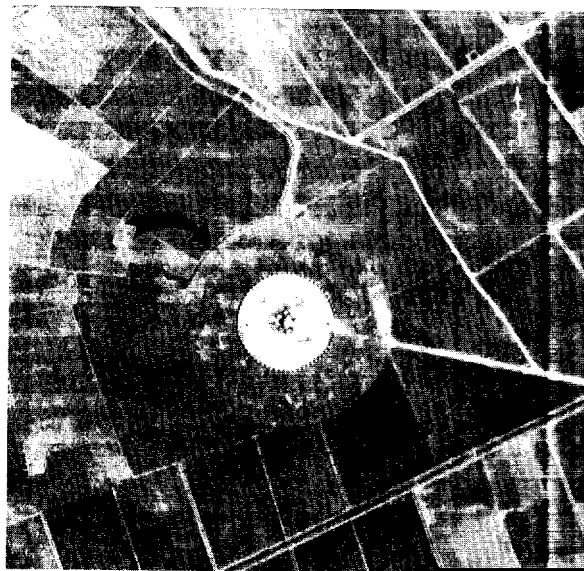


FIGURE 4. KUANG-CHOU SITE [REDACTED]

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### SHANG-HAI THICK EIGHT HF/DF SITE, CHINA

Geo Coords: 31-25-30N 121-25-20E

NPIC Target No: 0492-37C

BE No: [REDACTED]

Location: 11 nm north-northeast of Shang-hai

Nearest Airfield: Wu-sung Airfield (abandoned)  
is 2 nm east-southeast of the site

25X1A

25X1D

Maps or Charts: DIA, US Air Target Chart,  
Series 200, Sheet 0492-2IIL, 2d ed, Aug  
64, Scale 1:200,000 (SECRET)

25X1C



FIGURE 5. SHANG-HAI SITE [REDACTED]

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**PEIPING COLLOCATED THICK EIGHT  
HF/DF SITES (A AND B), CHINA**

Geo Coords: Site A, 39-44-55N 116-27-00E

Site B, 39-44-55N 116-27-55E

NPIC Target No: None

BE No: None

Location: 10.5 nm south-southeast of Peiping

Nearest Airfield: Nan-yuan Airfield is 4 nm  
northwest of Site A

25X1D

Maps or Charts: DIA. US Air Target Chart,  
Series 200, Sheet S0381-1AL, 3d ed, Jan 63,  
Scale 1:200,000 (SECRET)

25X1  
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Remarks: Sites A and B are approximately  
0.5 nm apart

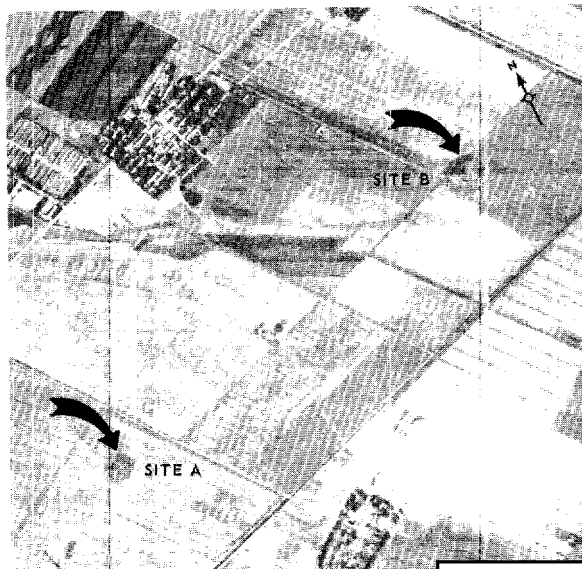


FIGURE 6. PEIPING SITES A AND B.

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**PEIPING THICK EIGHT HF/DF SITE (C), CHINA**

Geo Coords: Site C, 40-06-00N 116-32-30E

NPIC Target No: None

BE No: None

Location: 13.5 nm northeast of Peiping

Nearest Airfield: Peiping Central Airfield  
is 3.5 nm southeast of Site C

25X1D

Maps or Charts: SAC. US Air Target Chart,  
Series 200, Sheet S0289-21AL, 4th ed, Nov  
62, Scale 1:200,000 (SECRET)

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Remarks: Site C is 23 nm north-northeast of  
Sites A and B



FIGURE 7. PEIPING SITE C.

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Analysis of all available photography of the circular area within an athletic field near Fuchou reveals that it is neither a Thick Eight site nor electronics associated.

The Thick Eight is a static, wide-band HF/DF antenna system and may monitor 360 degrees of azimuth on frequencies from 3.5 to 28.0 megacycles.

The system consists of 8 vertical cage antennas arranged symmetrically at a radius of approximately 25 feet around a vertical sense antenna fixed on a small central control hut or goniometer hut. Each cage element is approxi-

mately 35 feet high and [ ] in diameter, and each is vertically polarized. The goniometer hut and antenna elements are surrounded by a fenced, circular, ground-plane reflector approximately 400 feet in diameter.

Reports indicate the Thick Eight has been employed in 3 ways: as a navigational aid at airfields, as a direction finding antenna at high frequency radio communications antenna farms, and as a backup for or adjacent to KRUG antennas. However, no KRUG antennas have been identified within the search areas of this report.

25X1D

#### REFERENCES

#### RELATED DOCUMENT

AFCIN. "New Radio Facility Operating in Soviet Bloc," *Air Intelligence Digest*, Vol 13, No 3, Mar 60 (SECRET)

#### REQUIREMENT

NSA/P0432/R144-65

#### NPIC PROJECT

11367/66

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